

SOURCE WATER PROTECTION PLAN

For Public Drinking Water Sources in
Plaistow, New Hampshire

August 2015

Updated by:
The Town of Plaistow 2015
Source Water Protection Committee

Primary contact:
Tim Moore
Plaistow Conservation Commission
Phone: (603) 382-5200

Committee Members:
Plaistow Conservation Commission:
(Tim Moore, Jill Senter, Olaf Westphalen, David Averill)

Normandeau Associates:
(Steven Lee, Joel Detty, Lisa Ferrari)

Town Staff:
(Mike Dorman, Denise Horrocks, Dee Voss, Greg Jones)

Document History

Creation Date	Creation Committee	Comments
November 2001	2001 Source Water Protection Committee	Initial Source Water Protection Plan

Annual Update

Date Reviewed	Reviewer	Changes or Comments
March 2015	2015 Source Water Protection Committee	Updated PCS list, add wellheads to Aquifer Map, Add voluntary survey program for all commercial/industrial businesses. Set up schedule to survey each business once every 3 years. Updates approved in August, 2015

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1. EXECUTIVE SUMMARY

This source water plan aims to increase public understanding of the Town of Plaistow's scarce aquifers and watersheds, which is the primary drinking water supply for the Town of Plaistow. This plan is meant to act as a guide for local decision makers, elected officials, managers, and citizens to use to make well-informed decisions regarding water resources.

Although more than 70% of Earth is covered by water, only approximately 2.4% is fresh water. Nearly 90% of fresh water is frozen in glaciers and ice-caps, meaning just 0.24% of all of the water on Earth is available in fresh, liquid form. Preserving the purity of this resource has long been recognized as a priority for both municipal and state governments.

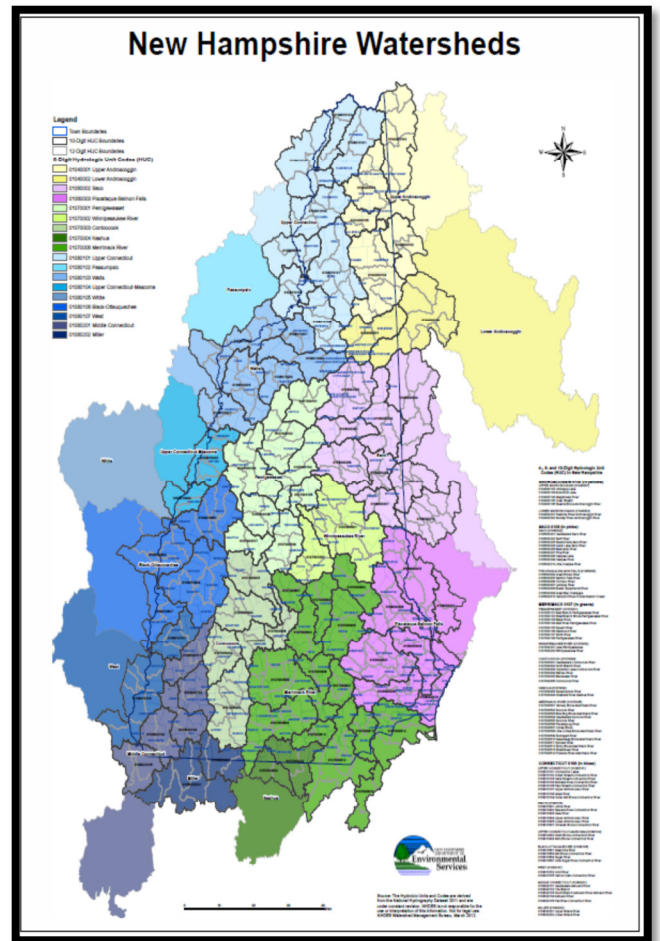
The objective of this plan is to identify potential sources of contamination from both human and natural sources, and provide specific recommendations to manage these threats in order to maintain safe and reliable drinking water for current and future generations.

This plan is a working document and should be reviewed annually and updated to remain current, relevant, active, and viable. A carefully researched and drafted source water protection plan is the first step to achieving comprehensive protection of a water supply, however community participation, landowner cooperation, and wise management on the part of elected and appointed officials is key.

As Plaistow's Local Officials, we pledge our continued support and advocacy to protect and sustain Plaistow's water resources for current and future generations.

OVERVIEW—PLAISTOW'S WATER RESOURCES

As one of only two New Hampshire municipalities that lack a surface water supply large enough to support a potable water source, the Town of Plaistow's water resources must remain a critical concern for local and state officials. Impacts from man-made and naturally occurring contaminants



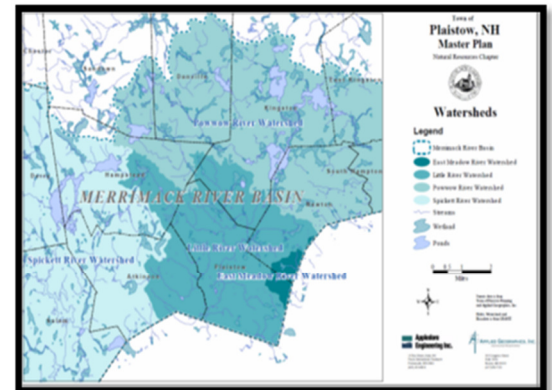
have placed extraordinary burdens on existing aquifers. Public awareness and engagement must be advanced to help ensure that Plaistow, as a community, upholds the highest standards to ensure that threats to public health, environmental protection, and sustainability can be achieved. This plan affirms the Town's commitment to actions that will improve and enhance the water resources of the Town for generations to come.

PLAISTOW'S WATERSHEDS

Plaistow's ground water is comprised of stratified-drift and bedrock aquifers. This includes water that runs over, across, or under land on its way to its lowest elevation point. The water in the Town's watershed is stored in surface water, ground water, wetlands, and in the air as precipitation.

Gulf of Maine: This is New England's largest watershed.

- Includes an area from Cape Cod to Nova Scotia, an area of approximately 69,000 sq miles.
- Fresh water becomes more saline the further it moves seaward. This watershed includes all of Maine, approximately 70% of New Hampshire, and smaller percentages of Massachusetts, Nova Scotia and New Brunswick.
- Highest point in watershed – Summit of Mt. Washington, 6280 ft.

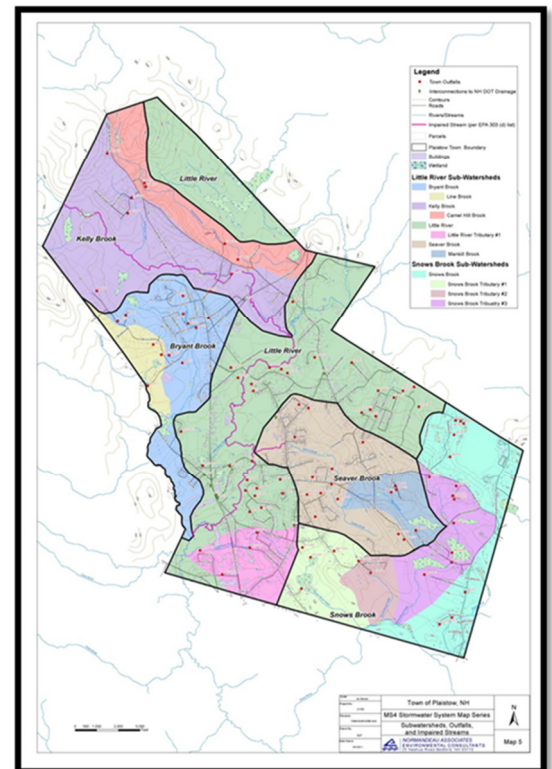


Merrimack River: This watershed is another smaller watershed contained within the larger Gulf of Maine watershed.

- Includes an area of approximately 6,000 square miles.
- 245 miles long including the Pemigewasset River that flows south from to White Mountains and merges with the Winnepesaukee River in Franklin, NH to make the Merrimack River.
- Highest point in the watershed – Summit of Mt. Lafayette, 5249 ft.

Little River: This watershed is a smaller watershed contained with the larger Merrimack River watershed.

- Includes an area of approximately 16 square miles
- The Little River traverses the NH Towns of Kingston, Plaistow, Atkinson, and Haverhill, Massachusetts.
- Drainage from Atkinson contributes approximately 13% of the volume of water in the Little River.
- Drainage from Plaistow contributes approximately 33% of the volume of water in the Little River.
- Drainage from Haverhill contributes approximately 22% of the volume of water in the Little River.



The majority of Plaistow is located in the Little River Watershed which is a sub-basin of the Merrimack River Basin. The Merrimack River Basin covers 173.2 square miles - 10.5 square miles of it is located in Plaistow. The Little River and its drainage basin make up most of Plaistow's surface water. Kelly Brook and Bryant Brook, both located to the west, are sub-basins of the Little River. Seaver Brook, located to the east, also contributes to the Little River drainage basin.

PLAISTOW'S RIVER WATER QUALITY

It is important to understand the extent of the watershed areas in town and the direction of flow because the direction of flow is useful in determining the impact of development activity on water quality. Because the Little River watershed encompasses the majority of Plaistow, it is susceptible to water quality impacts due to commercial and residential development. This watershed covers a large area outside of the town and is subject to significant land use change beyond Plaistow's control.

The State of New Hampshire establishes water quality classifications for all rivers in the state, both freshwater and tidal. These classifications range from Class A, the highest water quality, to Class D, the lowest. The description of Class A and Class B are as follows:



Class A *Potentially acceptable for water supply use after disinfection. No discharge of sewage, wastes, or other polluting substance into waters of this classification. (Quality uniformly excellent.)*

Class B *Acceptable for swimming and other recreation, fish habitat, and after adequate treatment, for use as water supplies. No disposal of sewage or wastes unless adequately treated. (High aesthetic value.)*

The New Hampshire Department of Environmental Services (NHDES) conducts annual water quality sampling on a statewide rotating basis. Under the EPA's MS4 Program, the Town regularly takes water samples from Kelly Brook, which is part of the Little River watershed. Sampling was conducted for E.coli. (fecal coliform bacteria), DO (dissolved oxygen), and zinc. Kelly Brook is classified as a Class B river.

LAKES/PONDS

Plaistow has no large lakes or ponds over ten acres, which is the threshold for identifying water bodies as Great Ponds. Great Ponds are public water bodies. There are number of smaller wetlands, only one or two acres, within the town that carry no specific names. These wetlands provide not only aesthetic quality to the town, but also wildlife habitat and recreational value.

CURRENT ISSUES THAT HAVE AN IMPACT ON THE QUANTITY AND QUALITY OF WATER IN ALL WATERSHEDS:

- Land use
- Non point source pollution (pollution discharged over a wide land area, not from one specific location)
- Septic tanks discharge
- Public and private water systems and wells

CURRENT GOALS:

- Maintain sufficient high-quality habitats for humans and wildlife
- Maintenance of water supply. Water is limited in time and place, humans must make good decisions so that the demand for water at a given time and place does not exceed the supply of water available.
- Mitigation of potential threats to well head areas

WHAT WE CAN DO TO HELP MEET THE GOALS:

- Recognize natural resource systems.
- Identify and remediate past mistakes that contribute to less quantity and decreased quality of water supplies.
- Long term plans should include water supply protection measures, shoreline setback regulations, and protection of key pieces of undeveloped land.
- Understand Buffers: Any disturbance within 25 feet of wetlands has an impact on wetlands, any disturbance between 25 and 100 feet will likely have an impact on wetlands, any disturbance between 100 and 300 feet is not likely to have an impact on wetlands, and any disturbance beyond 300 feet will likely not have an impact on wetlands.

Plaistow is part of three watersheds - the Little River Watershed, the Powwow River Watershed and the East Meadow River Watershed. These are sub-basins of the Merrimack River Basin. A small section of the northern part of town is located in the Powwow River Watershed while the eastern most part of town is located in the East Meadow River Watershed. The surrounding towns of Atkinson, Hampstead, Kingston and Newton are also part of the Little River Watershed.

Understanding the extent of these watershed areas and the direction of flow is useful in determining the impact of development activities on water quality. As the Little River Watershed encompasses the majority of Plaistow, it is susceptible to water quality impacts due to local and regional development. This watershed covers a large area outside of the town and is subject to significant land use change beyond Plaistow's control.

WETLANDS

Wetlands form a major part of Plaistow's water resources. Most are directly related to Little River and its tributaries, and are generally contiguous with poorly drained hydric soils. These areas include shallow ponds, marshes, swamps, bogs, and seasonally flooded lands. Wetlands are usually areas of low topography and poor drainage with standing water for all or part of the year. Wetlands possess a number of major resource values such as:

1. *Maintenance of water quality by filtering sediments and pollutants*
2. *Flood control*
3. *Groundwater recharge for water supply*
4. *Wildlife, plant, and fish habitat*
5. *Opportunities for education, recreation, and scenic diversity*

The definition and mapping of wetlands varies from agency to agency within New Hampshire and the federal government. The most widely accepted soil classifications used in community planning is generated by the US Natural Resource Conservation Service (NRCS) and includes the hydric soil category as discussed in the soils section of this chapter.

Wetland soils in Plaistow have been mapped by the Rockingham County Conservation District and the data is available through the NH GRANIT, a statewide geographic information system (GIS) clearinghouse administered by the University of New Hampshire (UNH) and the New Hampshire Office of Energy and Planning (NHOE) using the hydric soil classification. This classification relies solely on soils and does not distinguish between wetland types such as swamp, bog, wet meadow, shrub-scrub or forested. By quantifying wetland values, a hierarchy of wetland types can be established and appropriate measures for protection and management can be employed. There are approximately 889 acres of soil-based wetlands in Plaistow.

Wetlands have also been defined and mapped statewide on the GRANIT System using the criteria of the US Fish and Wildlife Service (USFWS) through the National Wetland Inventory Program. These wetlands have been identified through aerial photography and very limited field verification.

GROUNDWATER BASICS – WELLHEAD PROTECTION

All residential properties in Plaistow and most commercial properties are supported by ground water wells. Groundwater is used for drinking water by all Town residents and most Town businesses.

Until recently, there has been a lack of attention and public awareness about the significant impairments to the Town's water quality and aquifers. Many of Plaistow's current impairments to water resources are largely due to historical uses of property. Several small landfills in Town have been abandoned, and either simply covered over and vegetated, or cleaned only to a shallow depth. For example, the Town was forced to close a municipal landfill off Old County Road in the late 1980s and did so by simply adding a clay cap and stabilizing the surface with vegetation. In addition, Plaistow is also home to one of the largest superfund sites in the State. The 40 acre Beede waste oil superfund site is located on Kelley Road and was the location of several oil-related operations, including waste oil processing and re-sale, fuel oil sale, contaminated soil processing into cold-mix asphalt, anti-freeze recycling, and other related industries which have resulted in contamination.

In light of the historical and current impacts to the Town's water resource quality, continued protection of wellhead areas and watersheds is critical to the current and future health of this necessary resource.

Wellhead protection means protecting the area surrounding public drinking water supply wells, and in turn, protecting drinking water supplies. Groundwater is and will continue to be the source of drinking water for many communities. Protection of this vital resource is important! For example, expanding development may bring with it more potential sources of contamination; growing populations may stress the quantity of water available; and intensive agricultural practices may increase the need for more proactive management strategies.

Whether faced with an existing impairment to the water source or seeking ways to prevent contamination, wellhead protection makes good economic and environmental sense!

Aquifers are typically made up of gravel, sand, sandstone, or fractured rock such as limestone. Water can move through these materials because they have large connected spaces that make them permeable. The speed at which groundwater moves is dependent on the size of voids in the soil, or rock, and how well the spaces are connected.

Groundwater can be found almost everywhere. The water table may be deep or shallow; and may rise or fall depending on many factors. Heavy rains or melting snow may cause the water table to rise, or heavy pumping of groundwater supplies may cause the water table to fall.

Groundwater supplies are replenished, or recharged, by rain and snow melt that seeps down into the cracks and crevices beneath the land's surface. In some areas of the world, people face serious water shortages because groundwater is used faster than it is naturally replenished. In other areas groundwater is polluted by human activities.

Water in aquifers is brought to the surface naturally through a spring or can be discharged into lakes and streams. Groundwater can also be extracted through a well drilled into the aquifer. A well is a pipe in the ground that fills with groundwater. This water can be brought to the surface by a pump. Shallow wells may go dry if the water table falls below the bottom of the well. Some wells, called artesian wells, do not need a pump because of natural pressures that force the water up and out of the well.

In areas where material above the aquifer is permeable, pollutants can readily sink into groundwater supplies. Groundwater can be polluted by landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides. If groundwater becomes polluted, it will no longer be safe to drink.

TOWN OF PLAISTOW—EXISTING WATERSHED CONDITIONS

As one of only two municipalities in New Hampshire that does not have a pond or water body sufficient for a reservoir, the Town of Plaistow faces significant water resources challenges.

The State Line shopping center on the Plaistow/Haverhill border is connected to the Haverhill, MA water and sewer systems. No other business or residence in Plaistow is served by a municipal water supply or sewer system. Plaistow does not have any large surface waters that are suitable for a municipal supply. This puts tremendous importance on the groundwater – both quantity and quality.

Approximately 46% of New Hampshire communities rely on surface waters such as lakes, reservoirs, and rivers for their domestic, municipal water needs. Although surface waters are more able to provide a large volume of water on-demand than groundwater, they are often more susceptible to pollution and often require more extensive treatment than groundwater sources. As such, protecting the area from which the surface water originates, also known as a watershed, is of vital importance for ensuring both quality and quantity.

The area of Plaistow's aquifer is of substantial size, but is for the most part a low-grade aquifer as the transmissivity is less than 1,000 feet squared per day. In addition, the aquifer has a saturated thickness of less than 20 feet. The map in **Figure 6** shows the area of the aquifer.

Until recently, there has been a lack of attention and public awareness with regard to significant impairments to the Town's water quality and aquifers. Many of Plaistow's current impairments to the aquifers can be traced to historical use of properties. As stated in earlier sections of this plan, there have been several small landfills that have been abandoned. In some of the earlier (pre-1990) subdivisions, these landfills were either simply covered over or cleaned only to a shallow depth. In the 1970's a Town-wide landfill was created off Old County Road and was co-located with the Highway Department's garage and salt shed. The Town was forced to close the landfill in the late 1980s, and did so by placing a clay cap over the landfill and then loaming and seeding over the cap. There are several monitoring wells in place to monitor the effectiveness of the cap. For many years there was a gradual

increase in the quality of water; this corresponded to some years with below average rainfall and a lowering of the water table. More recently, the water table has raised enough to cause an increased flow of leachate into the groundwater, resulting in diminished water quality. During the clean-up process for contamination, it appeared that water quality in the surrounding area was, in fact, improving. Unfortunately, groundwater testing over the past 5 to 10 years has not been as successful. It has now been determined that the on-site Methyl Tertiary Butyl Ether (MtBE) contamination has a much larger plume area than was mapped during the initial clean up.

In the same area, the salt shed has also contributed to ground water contamination; so much so that the Town has had to provide a water system for several residences whose wells were contaminated by the salt shed. There is still much work to be completed in managing these sources of contamination. **Figure 1** shows the Town of Plaistow's capped landfill, and **Figure 2** shows a picture of the Town's current salt shed.

In the late 1970s and early 1980s, the former Lido gas station at the corner of East Road and Route 125 had an issue with leaking underground storage tanks. The gas station was closed and a decade of remediation activities began in the late 1980s. This was a major spill that caused NHDES to provide several proximate businesses and residences with water filtering systems and in some cases; they were supplied with bottled water. **Figure 3** shows the mapped locations of drinking water well impacts from the Lido site.

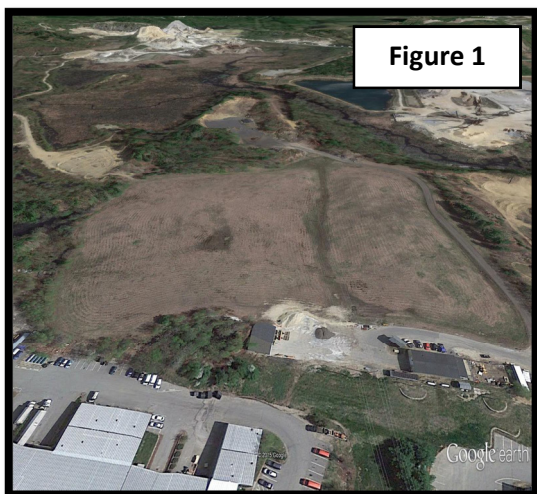
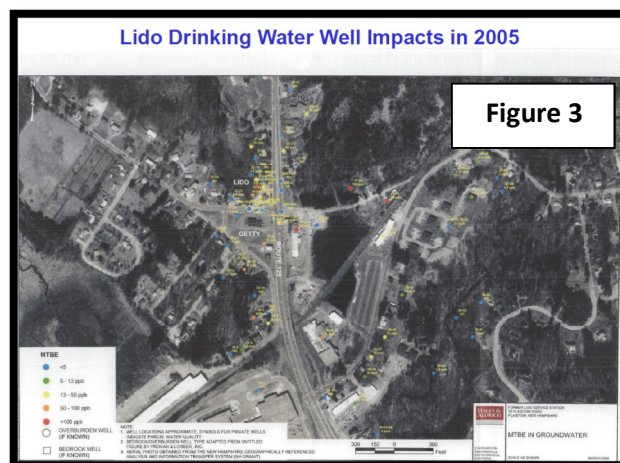


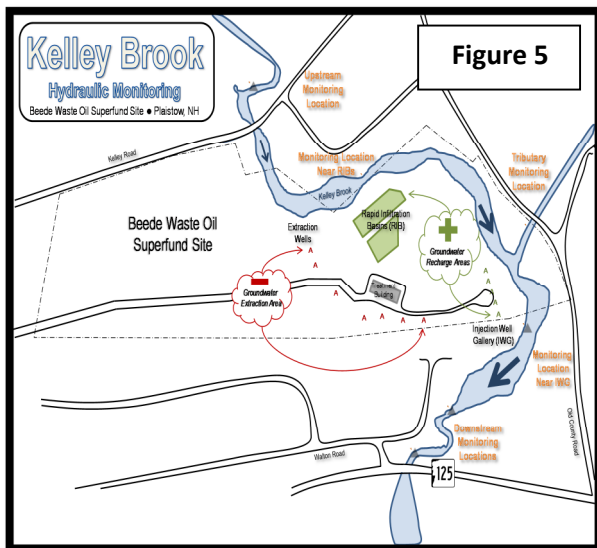
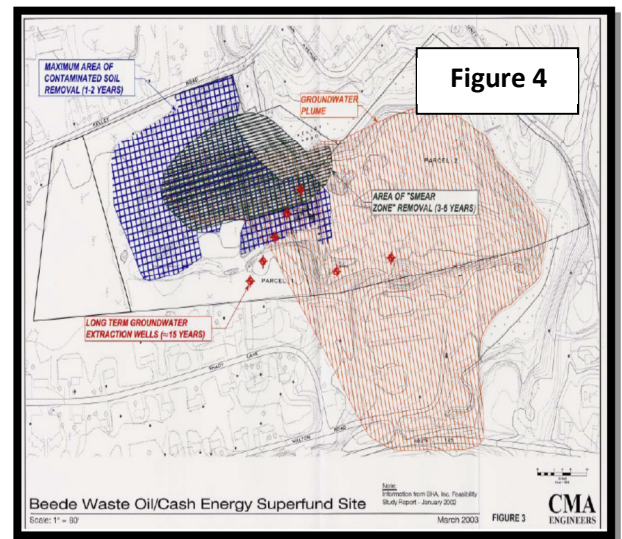
Figure 1



Figure 2



Of course, the largest source of contamination, in terms of both land area and contamination levels, is located at the former Cash Oil site, now known as the Beede Superfund site. **Figure 4** shows the contamination plume from the Beede site. This site's contamination sources consisted of both leaking underground and above ground storage tanks. In addition to the Volatile Organic Compounds (VOC's) contaminants from these tanks, the owner of Cash Oil collected hazardous materials from other locations and disposed of them improperly at the Cash Oil site. A number of above ground storage tanks with a capacity of almost 2 million gallons have been removed from the site. Many were leaking; many also had high levels of Polychlorinated Biphenyls (PCBs). Unbelievably, a 1500-gallon underground storage tank was constructed on-site by welding steel plates together. As this makeshift



storage tank could not be properly sealed, petroleum products leaked from this tank and flowed directly into Kelly Brook. **Figure 5** shows the existing interceptor trench monitoring location along Kelley Brook. The superfund clean-up has been in progress for over 10 years. Over 90,000 gallons of petroleum products were initially extracted from the ground water. The final groundwater clean-up will take at least another 20 to 25 years. Approximately 80,000 cubic yards of contaminated soil will eventually be removed from the site. This includes a large area of surface soils (55,000 cubic yards), seventeen soil piles (16,000 cubic yards), a landfill (11,000 cubic yards) and a small area of sediment (1,100 cubic yards)¹. A good portion of that will be

removed in the 2015 to 2016 time frame. PCBs are the main soil contaminant. Polyaromatic hydrocarbons (PAHs) and Volatile Organic Compounds (VOCs) are the main contaminants in the groundwater.

Plaistow sponsored a Water Symposium in 2013 to help define the water problem in Plaistow and to suggest possible solutions. Thanks to many consultants, NHDES participants, technical consultants, Plaistow Town Officials, and municipal officials from other towns and cities, the following conclusions were made:

1. Plaistow does not have an adequate supply of groundwater to be a source of municipal water. This includes both stratified drift and bedrock aquifers.

¹ EPA New England - Reuse Assessment Beede Waste Oil Superfund Site Plaistow, New Hampshire

2. In order to ensure an adequate supply of potable water, Plaistow must look for out-of-town sources.
3. It is still important to work to maintain the quality and quantity of the existing groundwater because it is and will be the source of potable water for all the private and public water systems in Plaistow. The process to supply municipal water is a very lengthy and costly process.

The original 2001 Source Water Protection Plan (SWPP) was prepared by the Plaistow Source Water Protection Committee that was comprised of members of the Conservation Commission, local, members of the general public and representatives from the operators of the public water supply systems in Plaistow. The Northeast Rural Water Association in conjunction with the US EPA and NHDES supplied the technical expertise and funding to complete the project.

The 2015 update to the SWPP is much more limited in scope and therefore a smaller committee was assembled to complete the task. The 2015 committee was comprised of the following members:

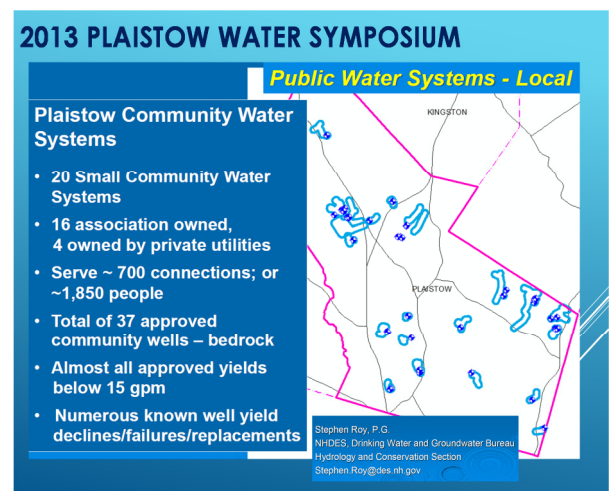
- Tim Moore – Town of Plaistow Conservation Commission and Planning Board
- Mike Dorman – Town of Plaistow Staff
- Dee Voss - Town of Plaistow Staff
- Denise Horrocks - Town of Plaistow Staff
- Steve Lee - Normandeau Associates.
- Joel Detty - Normandeau Associates.
- Lisa Ferrisi - Normandeau Associates.

Additionally, members of the Conservation Commission provided several reviews of the updated Plan while staff from Normandeau Associates provided the technical assistance required to complete the project. Funding was provided through a Local Source Water Protection grant from the NHDES which required a 20% local match. The local match was made up of staff time and “in kind” volunteer time. The major update to the Plan was the design and implementation of a voluntary inspection program for various commercial and industrial businesses in Plaistow.

The purpose of this SWPP is to protect the quality and quantity of Plaistow’s drinking water by identifying and managing potential sources of contamination and activities that occur within the source protection area. The plan provides a structured approach to managing these potential threats in order to maintain quality drinking water. This plan is a working document that will be routinely reviewed and updated to remain current, active, and viable.

1.1 Public Water Systems

There are 55 active public drinking water systems (PWS) in the Town of Plaistow, all of which develop their drinking water from groundwater. PWSs are defined by the NH Department of Environmental Services (NH DES) as “a piped water system having their own source of supply.” These systems are characterized by serving 15 or more service connections or serve an average of at least 25 or more people for 60 or more days each year. There are three types of public water systems. These include: **1) Community Public Water Systems (CPWS).** **2) Transient Non-Community Systems (TNC).** **3) Non-Transient Non-Community Water Systems (NTNC).**



Of the 55 PWSs in Plaistow, 21 are community public water systems (CPWSs), 16 are non-transient non-community systems (NTNCs), and 18 are transient non-community systems (TNCs). In addition, while many Plaistow residences are served by private residential wells, this Source Water Protection Plan does not apply to these wells.

Although not all of Plaistow’s PWSs draw water from the same aquifer, they all develop their public drinking water from local groundwater. In this respect, the Plaistow Source Water Protection Committee has considered protection measures for all groundwater in the municipality in order to achieve the greatest public health protection possible.

Table 1 - Existing Public Drinking Water Systems in Plaistow²

Public Water System	System Type	Well Type	System Category	Population Served
26 Chandler Ave. Condos	CPWS	BRW	Condominiums	33
5 / 9 Plaistow Rd. Plaza	NTNC	BRW	Commercial Property	75
All About Me Childcare and Learning Center	NTNC	BRW	Day Care	48
American Legion Post 34	TNC	BRW	Function Halls, Churches, Social Clubs	50
APS Plaistow Pizza Co.	TNC	BRW	Restaurant	200
Barons Condos	NTNC	BRW	Workplace (Not commercial or industrial)	60
Beckwood Services	NTNC	BRW	Commercial Property	47
Blueberry Knoll Estates	CPWS	BRW	Apartments	32
Brickyard I Plaza	NTNC	BRW	Day Care	26
Bryant Brook	CPWS	BRW	Condominiums	55

² Town of Plaistow

Public Water System	System Type	Well Type	System Category	Population Served
Chandler Terrace	CPWS	BRW	Condominiums	30
Cross Ridge Estates	CPWS	BRW	Condominiums	73
Cumberland Farm	TNC	BRW	Service Station	200
Dunkin Donuts Plaza	TNC	BRW	Restaurant	800
Ethan Allen Plaza	NTNC	BRW	Commercial Property	32
Fieldstone Industrial Park	NTNC	BRW	Industrial Facility	75
Fitzgerald Safety Complex,	TNC	BRW	Town Offices, Libraries, Police & Fire	70
Forrest Street Condos	CPWS	BRW	Condominiums	70
Golden Hill	CPWS	BRW	Condominiums	110
Great Elm Plaza	NTNC	BRW	Commercial Property	30
Greenfield Hill Estates	CPWS	BRW	Single Family Residences	80
Hopes Diner	TNC	BRW	Restaurant	75
Larry's Clam Bar	TNC	BRW	Restaurant	500
Little Explorers	NTNC	BRW	Day Care	44
Little River Village	CPWS	BRW	Single Family Residences	7
Market Basket Demoulas 25	NTNC	BRW	Commercial Property	395
Moongate Farm	CPWS	BRW	Condominiums	120
Off The Wall Gymnastics	TNC	BRW	REC and ED Facility, Historical Site	300
PARC Recreation Field	TNC	BRW	Snack Bar, Take Out Foods	200
Pentucket Shopping Center	NTNC	BRW	Commercial Property	200
Plaistow Commons	NTNC	BRW	Commercial Property	100
Plaistow Community YMCA	TNC	BRW	REC and ED Facility, Historical Site	50
Plaistow Fish and Game Club	TNC	BRW	REC and ED Facility, Historical Site	150
Plaistow Petro King	TNC	BRW	Restaurant	250
Plaistow Town Hall	TNC	BRW	Town Offices, Libraries, Police & Fire	50
Plaza 125	TNC	BRW	Restaurant	200
Pollard Elementary School	NTNC	BRW	Schools (Public, Private Day Schools)	702
Rainbow Ridge	CPWS	BRW	Single Family Residences	38
RITE AID Pharmacy	TNC	BRW	Medical Offices (Doctor/Dentist)	50

Public Water System	System Type	Well Type	System Category	Population Served
Rockingham Church	TNC	BRW	Function Halls, Churches, Social Clubs	250
Rutledge Place	PCS	BRW	Condominiums	30
SAD Café Music Theater	TNC	BRW	Restaurant	25
Scandia Plastics	NTNC	BRW	Commercial Property	45
Shady Lane Apartments	CPWS	BRW	Apartments	35
Stonebridge Village	CPWS	BRW	Single Family Residences	60
Strawberry Hill	CPWS	BRW	Condominiums	50
Sweet Hill Estates	CPWS	BRW	Single Family Residences	75
Timberlane Middle School	NTNC	BRW	Schools (Public, Private Day Schools)	1114
Timberlane Regional High School	NTNC	BRW	Schools (Public, Private Day Schools)	1591
Tuxbury Meadows	CPWS	BRW	Single Family Residences	75
Twin Ridge Condos	CPWS	BRW	Condominiums	425
Valley Field Apartments Northland	CPWS	BRW	Apartments	185
VIC Geary Senior Center	TNC	BRW	Function Halls, Churches, Social Clubs	40
West Pine Condos	CPWS	BRW	Condominiums	60
Westview Park Condos	CPWS	BRW	Condominiums	215

1.2 Wellhead Protection Areas (WHPAs)

Wellhead Protection Areas (WHPAs) are defined as the surface and subsurface areas surrounding a water well, or well field supplying community and non-community public water systems, through which contaminants are reasonably likely to move toward and reach such water well or well field³. As such, these land areas are the critical areas for source water protection. Due to the number and density of public drinking water systems in Plaistow, most of the Town's WHPAs overlap one another in a web of overlapping circles.

The Wellhead Protection Areas (WHPA) for each public water system have been delineated by the NHDES (**Figure 6**). NTNC WHPAs are calculated, fixed-radius circles. The radius of NTNC WHPAs is determined by the volume of withdrawal from the source. For TNCs, WHPAs are circular areas with a 500-foot radius.

Figure 6 – Drinking Water Resources Map

Please contact the Town of Plaistow or the NH Department of Environmental Services for a copy of the Drinking Water Resources Map

³ Town of Plaistow Zoning Ordinance - 2015

Since it is likely that additional public water sources will be needed in the future, the Plaistow Source Water Protection Committee understands that while certain protection measures are necessary within the public water sources' WHPAs, other contaminant prevention measures are appropriate town-wide to protect Plaistow's groundwater resources for future drinking water needs.

1.3 Source Protection Area

The source protection area is mostly composed of the aquifer and wellhead protection areas. These sources of groundwater can be protected in part by regulations such as sanitary protect radii and land use restrictions. Approximately 75% of Plaistow residences rely on private wells. Regulations, in general, are not the most effective way to protect private well. Public education should therefore be an important part of this SWPP. It not only will help those who receive potable water from PWSs but private wells as well.

2. POTENTIAL SOURCES OF CONTAMINATION

According to the NHDES drinking water supply database, the following list (**Table 2**) contains known business sites within the Town of Plaistow which may potentially be considered sources of contamination (PCSs). As provided within *NH RSA 485-C:7*, a PCS is defined as "any Human activities or operations upon the land surface shall be considered potential contamination sources if the activity or operation poses a reasonable risk that regulated contaminants may be introduced into the environment in such quantities as to degrade the natural groundwater quality". As most of Plaistow's WHPAs overlap one another, and because they encompass most of the Town's land area, a number of these PCSs lie within a WHPA and may pose a risk to public drinking water supplies.

The following businesses are included in **Table 2** based only on the business type. It in no case should be interpreted to mean that any business is a source of contamination.

Also note that the Beede superfund site is not in the following table because there is no longer any business at that site and clean up operations are ongoing under the supervision of the USEPA and NHDES. Periodic updates are relayed to the Town via newsletters and face-to-face meetings. All such results are posted to the Town's web site.

Table 2 - Potential and Existing Sources of Groundwater Contamination

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
121 Auto & Electric Inc.	6 Duston Rd	HWG	VSR	2016	-
125 Auto and Truck Sales Inc.	4 Danville Rd	HWG	VSR	2016	-
A L Prime Energy	93 Plaistow Rd	UST	AST/UST	2015	N/A
Access Sports Medicine and Orthopedics	13 Plaistow Rd	HWG	LAB	2016	-
AL Hoyt & Sons Inc.	25 Chandler Ave	HWG	EEE	2016	N/A (Inspection Not Needed)
Aldi Supermarket	9 Plaistow Rd	HWG	GSR	2016	-
Allure Hair Studio	95 Plaistow Rd	HWG	CLN	2016	-
Anchor Used Auto Parts Annex	233 Main St	'Remediation Site -'Ether Contaminated Site, HWG	ASF	2016	-
Anton's Cleaners	37 Plaistow Rd	HWG	CLN	2016	-
Approved Auto Services	2 Danville Rd	HWG	VSR	2016	-
ASAP Auto Repair	27 Newton Rd	HWG	GSR	2016	-
Asian Auto Services Inc.	21 Danville Rd	HWG	VSR	2016	-
ATI Auto and Used Cars	202 Main St	HWG	VSR	2016	-
Atlas Motor Express Inc.	51 Kingston Rd	HWG	WSPS	2016	N/A (Inspection Not Needed)

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Automart of New England	2 Danville Rd	HWG	VSR	2016	-
Auto Zone	12 Plaistow Rd	HWG	VSR	2016	N/A (Inspection Not Needed)
B&J Auto Body	40 Main St	HWG	VSR	2016	-
Barber Shop	225 Main St	HWG	CLN	2016	-
Barton's TV	12 Plaistow Rd	HWG	GSR	2016	-
Beckwood Services	27 Hale Spring Rd	HWG	MAN	2016	-
Bed Bath & Beyond	58 Plaistow Rd	HWG	LAB	2016	-
Berube Tool and Die	34 Main St	HWG	MW	2016	-
Biggart Marine	2 Danville Rd	HWG	VSR, GSR	2016	-
Bill Bartlett & Son Landscaping Inc.	43 Forrest St	HWG	EEE	2016	-
Blinn's Auto Body & Recon	38 Westville Rd	HWG	VSR	2016	-
Brandy Brow Auto Parts	89 Newton Rd	AST, HWG, Remediation Site: Hazardous Waste Discharge Project, Unsolicited Site Assessment Reviewed by ORCB, Ether Contaminated Site	ASF, SWF	2016	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Brooks Pharmacy 495	34 Plaistow Rd	HWG	LAB	2016	-
Brookside Chapel and Funeral Home	116 Main St	HWG	LAB	2016	N/A (Inspection Not Needed)
Bruce Transportation Group	2 Danville Rd	HWG	VSR	2016	-
C W Keller & Associates Inc.	9 Hale Spring Rd	HWG, UST, AST	MAN	2016	-
Camarda Auto Sales	147 Plaistow Rd	HWG	CARD	2015	2016
Carparts Distribution Center	95A Plaistow Rd	HWG	CARD	2015	N/A (Inspection Not Needed)
Chart Industries	146 Main St	HWG	MAN	2016	-
Chaya Bros Auto Salvage	237 Main St	HWG, Non-domestic Wastewater	WSPS	2016	-
The Coach Company	11 Wentworth Ave	HWG, UST, Initial Response Spill Site	VSR	2016	-
Colonial Auto Body	231 Main St	HWG	VSR	2016	-
Corey Motors	2 Danville Rd	HWG	VSR	2016	-
Cumberland Farms	142 Plaistow Rd	HWG, UST	GSR	2016	-
CVS Pharmacy	Stateline Plaza, 4 Plaistow Rd	HWG	GSR	2016	-
David Jones & Sons	2 Red Oak Drive	HWG	EEE	2016	-
Delta Cleaning	Fieldstone Industrial Park, 4 Wilder Drive	HWG	MAN	2016	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Delta Gulf-Corp	214A Plaistow Rd	HWG	GSR	2016	-
Dependable Waste Oil Svc. Inc.	Kelley Rd	HWG	GSR	2016	-
Dicks Auto Body Inc.	212 Plaistow Rd, Route 125	HWG	VSR	2015	2016
Diesel World	87 Plaistow Rd	HWG	CARD	2015	2016
Dodges Agway	25 Old County Rd	HWG	GSR, MAN	2016	-
Duke of SAAB	2 Danville Rd	HWG	VSR	2016	-
Early & Sons Contracting	123 Newton Rd	UST, HWG	EEE	2016	-
Eastside Properties Inc.	216 Plaistow Rd	HWG	GSR	2016	-
ED's Carpet	9 Blossom St	HWG	MAN	2016	-
Ellen's Electrolysis/Lifescape Studios	91 Main St	HWG	CLN, GSR	2016	N/A (Inspection Not Needed)
Euro Car Garage	146 Plaistow Road	HWG	GSR	2015	N/A (Inspection Not Needed)
Exotech	9 Newton Rd	HWG	GSR	2016	-
Faith's Beauty Salon	21 Rustic Lane	Underground Injection Control	CLN	2016	-
Freedom Tire	37 Westville Rd	HWG	VSR	2016	-
Fresh Coat Finishing	Fieldstone Ind. Park, 4 Wilder Drive	HWG	GSR	2016	-
Galloway Trucking	1 Roadstone Dr	AST, HWG, Underground	CAT	2016	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
		Injection Control			
George W Pynn Masonry	29 Newton Rd	HWG	GSR	2016	-
Grand Rental Station	63 Plaistow Rd	HWG	GSR	2015	2016
Granite State Gas & Transmission	23 Atkinson Depot Rd	HWG, UST	GSR	2016	-
Gulf Gas Station	70 Plaistow Road	HWG	GSR	2015	2016
Heavy Metal Automotive	91 Kingston Rd	HWG	CARD	2016	-
Hennessey Landscaping	17 Newton Rd	HWG	EEE, GSR	2016	-
Home Depot	58 Plaistow Rd	HWG	GSR	2016	-
Interstate Used Cars	7 Blossom Rd	HWG	CARD	2017	-
Jacks Towing and Auto Repair Inc.	6 Danville Rd	AST, HWG	VSR	2017	-
Jiffy Lube	75 Plaistow Rd	AST, HWG, Underground Injection Control	VSR	2015	N/A
Joan Kimball DMD	15 Wentworth Ave	HWG	LAB	2017	N/A (Inspection Not Needed)
Joes Barber Shop	135 Main St		CLN	2017	-
John & sons Garage	14 Danville Rd	HWG	VSR	2017	-
John Antons Cleaners	37 Plaistow Road	CLN	CLN	2015	N/A (Inspection Not Needed)
JTS Auto and Truck	7 Rose Ave	HWG	VSR	2015	2016

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Kidder Building & Wrecking Inc.	247 Main St	SWF, AST, HWG, VSR	WSPS	2017	-
Kidder Concrete	22 Danville Rd	GSR	EEE	2017	-
King Graphics	100 Plaistow Rd	HWG	MAN	2017	-
Leavitt Gas and Service	70 Plaistow Rd	HWG	GSR	2015	2016
Leavitt's Auto and Truck Sales	78 Plaistow Rd D	CARD	CARD	2017	-
M & J Superior Automotive	18 Danville Rd	HWG	VSR	2015	2016
Magic Touch Dry Cleaners	4 Plaistow Rd	HWG	CLN	2017	N/A (Inspection Not Needed)
Market Basket	34 Plaistow Rd	HWG, Underground Injection Control	GSR	2017	-
Matthews Auto Body and Sales LLC	321 Main St	HWG	CARD, VSR	2017	-
M&B Tractor and Equipment	194 Plaistow Rd	HWG, AST	CONS	2015	2016
Mckinney Artesian Well & Pump	18 Newton Rd	HWG, UST, Initial Response Spill Site	GSR	2017	-
Mega Store Auto Group	103 Plaistow Rd	HWG	VSR	2015	2016
Meineke Car Care Center	13 Plaistow Rd	VSR	VSR	2015	2016
Midas Muffler and Brake Shop	44 Plaistow Rd	VSR	VSR	2015	2016

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Nicks Garage	24 Chandler Ave	HWG	VSR	2017	-
Northland Variety	134 Newton Rd	UST, HWG, 'REMEDIATION SITE - 'Leaking Underground Storage Tank Project	UST/AST	2017	-
Official Auto Sales & Service	141 Plaistow Road	HWG	VSR	2015	2016
Petco Animal Supplies	4 Plaistow Rd	HWG	CLN	2017	-
Petes Sewer Service	124 Forest St	HWG	WSPS	2017	-
Photo Center	58 Plaistow Rd, Inside Walmart	HWG	GSR	2017	-
Plaistow Auto Sales	53 Newton Rd	HWG	VSR	2017	-
Plaistow Cabinetry	56 Newton Rd	HWG	MAN	2017	-
Plaistow Dental	157 Main St	HWG	LAB	2017	-
Plaistow Fire Department	27 Elm Street	HWG	VSR	2017	-
Plaistow Fish and Game	18 May Ray Ave	UST	UST/AST	2017	-
Plaistow Health-Pediatrics	24 Plaistow Rd	HWG	LAB	2017	N/A (Inspection Not Needed)
Plaistow Municipal Landfill	37 Old County Rd	'REMEDIATION SITE - 'Existing Landfill or Landfill Closure	SWF	2017	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Plaistow Power Sports	107 Plaistow Rd	HWG	VSR	2015	2016
Poliquin Welding & Fabrication	4 Duston Ave	HWG	MAN	2017	-
Precision VCR and TV Service	26 Main St	HWG	GSR	2017	-
Pro Bark Inc.	51 Kingston Rd	REMEDIATION SITE - 'Unsolicited Site Assessment Reviewed By ORCB, AST	MAN	2017	N/A (Inspection Not Needed)
Protective Coatings	2 Timberlane Rd	HWG	MAN	2017	-
Puma Corp.	29 Newton Rd	HWG	GSR	2017	-
Quality Machine Inc.	31 Kingston Rd	HWG	MW	2017	-
Quick Stop Tire	147 Plaistow Rd	HWG	VSR	2015	2016
R E P Landscaping Inc.	213 Main St	HWG	WSPS	2017	N/A (Inspection Not Needed)
RAY-TEK Services Inc.	164 Plaistow Rd	HWG	GSR	2017	-
REIS Frederick Owner	78 Plaistow Rd	HWG	GSR	2017	-
Ricks Motorcycle Enterprises Inc.	33 Plaistow Rd	HWG	VSR	2017	-
Rite AID	31 Garden Rd	HWG	LAB	2017	-
Rooneys Welding	Fieldstone Industrial Park, 4 Wilder Drive	MW	MW	2017	-
S & R Construction	121 Newton Rd	HWG	EEE	2017	-
Salon 121	23 Atkinson	HWG	CLN	2017	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
	Depot Rd				
Salon Invidia	160 Plaistow Rd	HWG	CLN	2017	-
Scandia Plastics	55 Westville Rd	UST, HWG, Underground Injection Control, Ether Contaminated Site	MAN	2017	-
Senter Auto Supply	124 Plaistow Rd	UST	GSR	2017	-
Shaw's Supermarket	4 Plaistow Rd	HWG	GSR	2017	-
Sign Designs	67 Main St	HWG	GSR	2017	N/A (Inspection Not Needed)
Singer Subaru	77 Plaistow Rd	HWG	CARD, VSR	2015	N/A
Skips Garage	157 Plaistow Rd	HWG, UST	VSR	2015	2016
Sparton Corp.	27 Hale Spring Rd	HWG	GSR	2017	-
Spindel Eye Associates	185 Plaistow Rd	HWG	LAB	2017	-
State Line Pet Supply	137 Plaistow Rd	HWG	GSR	2017	-
Sullivan Tire & Auto Service	126 Plaistow Road	HWG	VSR	2015	N/A
Supercuts	Shaws Plaza, 5 Plaistow Rd	HWG	CLN	2017	-
Timberlane Auto Body	42 Main St	UST, HWG	VSR	2017	-
Timberlane High School	36 Greenough Rd	HWG, UST	UST/AST	2017	-
Timberlane Middle School	44 36 Greenough Rd	HWG	UST/AST	2017	-

Site Name	Site Address	Project Type	Business Type	Inspection Year	Revisit Need
Timberlane Plate Glass Company	108 Main St	UST, Remediation on-site - Leaking Underground Storage Tank Project	UST/AST	2017	-
Town Fair Tire	42 Plaistow Rd	VSR	VSR	2015	N/A (Inspection Not Needed)
Tractor Supply	96 Plaistow Rd	HWG	GSR	2017	-
Truck Equipment Sales & Service	2 Danville Rd	HWG	VSR	2017	-
Truform Manufacturing	2 Wilder Drive	May not exist	MAN	2017	-
US Post Office	38 Main St	HWG	GSR	2017	-
Veolia Environmental at Municipal Landfill	51 Old County Rd	HWG	WSPS	2017	-
Verizon Wireless Zone	9 Plaistow Rd	HWG	GSR	2017	-
Village Dental of NE	89 Plaistow Rd	HWG	LAB	2017	N/A (Inspection Not Needed)
Walgreens	3 Plaistow Rd	HWG	LAB	2017	-
Walmart	58 Plaistow Rd	HWG	GSR	2017	-

PCS Acronym Definitions:

ASF	Auto Salvage Yard
AST	Above Ground Storage Tank Facility
CARD	Car dealerships (with or without service departments)
CLN	Dry cleaners; Laundromats; beauty salons; and car washes
CONS	Construction sites (not including housing developments)

EEE	Active gravel pits; construction businesses with earthmoving or excavating equipment stored and maintained on site.
GSR	Furniture stripping, painting and refinishing; photographic processing; printing; appliance and small engine repair; boat repair; refrigeration, heating, ventilating and air conditioning shops; and electrical repair shops.
HWG	Hazardous Waste Generator
LAB	Medical, dental, veterinary offices and pet grooming; research, development, testing and analytical labs; and funeral services.
MAN	Electronic and chemical manufacturing, processing and reclamation; paper, leather, plastic, fiberglass, rubber, silicon and glass making; pharmaceutical production; pesticide manufacturing; and chemical preservation of wood and wood products.
MW	Machine shops; metal plating, heat treating, smelting and jewelry making shops.
SWF	Solid Waste Facility
UST	Underground Storage Tank Facility
VSR	Auto, truck and equipment or repair shops; autobody shops, including those associated with fleet maintenance; and mobile home dealers.
WSPS	Junkyards, scrap yards and auto salvage yards; wastewater (ww) treatment plants; dumps, landfills, transfer stations and other solid waste facilities; waste water or septage lagoons.

Table 3 shows various types of contaminants and possible visible signs that such contamination exists at a site.

Table 3 – POTENTIAL CONTAMINATION SOURCES – WHAT TO LOOK FOR

Facility Type	Facility Type Acronym	What to Look For
UST & AST Facilities	AST/UST	Gas stations, petroleum bulk storage, chemical storage, on-site heating fuel
Vehicle Service & Repair Shops	VSR	Auto, truck, & equipment service or repair shops, auto body shops, including those associated with fleet maintenance, mobile home dealers
General Service & Repair Shops	GSR	Furniture stripping, painting & refinishing, photographic processing, printing, appliance & small engine repair, boat repair, refrigeration, heating, ventilating & A.C. shops, electrical repair shops
Metalworking Shops	MW	Machine shops, metal plating, heat treating, smelting & jewelry making shops
Manufacturing Facilities	MAN	Electronic & chemical manufacturing, processing & reclamation, paper, leather, plastic, fiberglass, rubber, silicon, & glass making, pharmaceutical production, pesticide manufacturing, chemical preservation of wood

Facility Type	Facility Type Acronym	What to Look For
		& wood products
Waste & Scrap Processing & Storage	WSPS	Junkyards, scrap yards & auto salvage yards, wastewater (ww) treatment plants, dumps, landfills, transfer stations & other solid waste facilities, waste water or septage lagoons
Laboratories & Professional Services	LAB	Medical, dental, veterinary offices; research, development, testing & analytical labs, funeral services camera and photo supply stores
Salt Storage & Use	SALT	For winter road & parking lot use
Cleaning Services	CLN	Dry cleaners; Laundromats; beauty salons; car washes
Food Processing Plants	FP	Meat packing & slaughterhouses; dairies; processed food manufacture
Fueling Maintenance of Evacuation & Earthmoving Equipment	EEE	Active gravel pits; construction businesses with earthmoving or excavating equipment stored and maintained on site
Concrete, Asphalt & Tar Manufacture	CAT	Concrete & asphalt plants
Car Dealer ships	CARD	Car dealerships (with or without service departments)
Construction Sites	CONS	Construction sites (not including housing developments)

3. ASSESSMENT OF THREATS

NHDES established its Drinking Water Source Assessment Program (DWSAP) help improve protection of public water supply sources in New Hampshire. The DWSAP did this by providing information about the vulnerability of each of the approximately 2,950 public water supply sources in the state. This information was provided in the form of assessment reports (one for each public water supply source) to public water suppliers and the general public between 2000 and 2003. The vulnerability of Plaistow's 56 public drinking water systems to a number of contaminant criteria is summarized in Table 4. The first assessments were done in 2000 and have been periodically updated with the last update occurring in 2006. The summary table below looks at all the latest assessments regardless of when they were performed.

According to NHDES Source Water Assessment [Reports](#), public water supply wells have the following susceptibility criteria. Susceptibility is the potential for a public water supply system to draw water contaminated by inventoried existing and potential sources at concentrations that would pose concern. Summarizing this data from

NHDES, the majority of Plaistow's public drinking water sources received "high" or "medium" vulnerability ranking for the following susceptibility criteria as discussed below. Generally, a "high" vulnerability ranking means the public water system well is at greater risk than if the ranking was "medium" or "low." Each of the criteria was developed by NHDES and described in greater detail online at www.des.nh.gov, by searching "*Source Water Assessments*".

The Source Water Assessments of each public water source are based on the 14 Susceptibility Ranking Criteria as described below:

1. Detects: Confirmed detections of certain contaminants (after treatment) of suspected human origin, not including disinfection byproducts.
2. Well/Intake: The integrity of the well (if a groundwater source) or intake (if a surface water source).
3. KCSs: Known Contamination Sources in the vicinity of the source. This includes any site known to NHDES where contaminants are known or very likely to have been released to the ground, and where remediation is not complete.
4. PCSs: Potential Contamination Sources in the vicinity of the source. This includes any site known to NHDES where contaminants are known or very likely to be used in quantities, but where there are no known releases to the ground.
5. Highways/RRs: The presence of numbered state-highways or active railroads in the vicinity of the source.
6. Pesticides: Whether or not pesticides have been routinely applied in the vicinity of the source. This is based on the presence of land parcels owned by registered pesticide applicators.
7. Septic: The presence or density of septic systems and sewer lines in the vicinity of the source.
8. Urban Land Cover: The percentage of urban land cover in the vicinity of the source, based primarily on satellite images.
9. Agricultural Land Cover: The percentage of agricultural land in the vicinity of the source (in the Well Head Protection Area or within 300 feet of surface water in the HAC), based primarily on satellite images.
10. Animals: The presence of concentrations of 10 or more animal units in the vicinity of the source.
11. Lagoons: The presence of wastewater treatment lagoons or spray irrigation sites in the vicinity of the source.
12. Dry Discharges: The presence of dry-weather stormwater discharge sites in the vicinity of the source.
13. Sanitary Radius: The presence of development not associated with the well within the sanitary radius (within 75 to 400 feet of the well).

14. Trophic status: The projected trophic (nutrient) status of the source as predicted by a computer model using a future land development scenario for the watershed.

Each of these 14 assessment criteria is assigned a Vulnerability Ranking – High, Medium, and Low. The full assessment report as included in Appendix B explains how the vulnerability rankings apply to the susceptibility criteria. No sources were ranked for Dry discharges or Trophic status.

Table 4 – ASSESSMENTS SUMMARY

Number PWSs not included in the Assessment	Number of PWSs included in the Assessment	Number of wells in the PWSs included in the Assessment	Number of High Vulnerability Rankings	Number of Medium Vulnerability Rankings	Number of Low Vulnerability Rankings
3	53	77	206	157	501

The large number of low rankings gives a general indication that the public water systems in Plaistow are located reasonably well and safe from contamination sources. However, there needs to be constant vigilance to make sure these rankings hold or are improved.

The full report of the “Assessments of Public Water Supply Sources – PLAISTOW” can be found in Appendix B.

Additionally, there are four features that can be used to assess the vulnerability of a drinking water well to contamination:

1. **Well Characteristics and Integrity:** the age and construction details of the well.
2. **Topography, Soils, and Geology:** the nature of the geological formations that the well taps, the types of soils and geological materials lying between the land surface and the zone that the well draws from.
3. **Surface Water Features:** any nearby surface water features that might contribute pathogens or other contaminants to the well.
4. **Source Water Quality:** the quality of water drawn from the well and if available, water quality data from other wells within the source protection area.

Land uses with the following attributes commonly received a high vulnerability ranking within the Source Water Assessment Report published by the NHDES in September, 2007:

1. Known detects of contaminants in water samples (most commonly MtBE and volatile organic compounds (VOCs)).
2. Location and number of roadways and transportation corridors within the WHPA.
3. Number and proximity of septic systems and sewer lines within the WHPA.
4. Residential land uses.
5. Anthropogenic potential commercial contaminant sources within the WHPA (hazardous waste facilities, aboveground and underground storage tanks, general service and repair shop (i.e. photo lab), vehicle service and repair shops, etc.).
6. High percentages of urban land cover with the WHPA.
7. RCRA Site (facility that generates hazardous wastes that could cause contamination if a release occurs)
8. Underground injection control (discharge of benign waste waters not requiring a groundwater discharge permit)
9. Demand
10. Agricultural lands. There are no agricultural zones in Plaistow; however, there are two large parcels that can be considered agricultural lands. The first is the former Cox farm in the northeast part of town. It is a 40-acre parcel that straddles the Plaistow/Kingston Town Line. A Conservation Easement held by the Rockingham County Conservation District purchased by a federal Ranch and Farm Lands grant protects approximately 35 acres of the parcel and Farm Lands. It is currently being used for horse stables and pastureland. The easement includes provisions for protecting the adjacent Little River from manure and pesticide/fertilizer contamination. The second farm is approximately 10 acres and is mostly a greenhouse operation with only a few animals remaining. In its current operation, no large applications of pesticides or fertilizers are being used. The few remaining animals do not pose a threat for manure contamination.
11. Zoning impacts. The Plaistow Zoning Ordinance defines industrial, commercial, and residential zones each with their own geographic boundaries. Each zone further defines a set of permitted uses and any use not specifically defined as permitted is prohibited. Furthermore, buffers are defined where different zones abut each other. The buffers were primarily established to provide green space and visual barriers for residential zones. However, these same buffers do offer additional protection for water supply sources. A build out analysis was completed in the 2008/2009 timeframe. Although it needs to be updated, the analysis did show most of Plaistow is already built up with only back lots

available for some small developments. Numerous wetland areas further restrict these developments.

3.1 Confirmed Contaminant Detects of Concern in Source Water

The routine monitoring samples required by NHDES of all public water systems has detected the presence of contaminants in 13 of the 56 public drinking water wells for which it has completed a Source Water Assessment. In addition, the Plaistow community has been alarmed by several detections of MtBE in private wells. Detection of these contaminants in source waters indicates that contaminants have been released to groundwater in certain areas. For this reason the drinking water sources that have detected non-naturally occurring substances are vulnerable to contamination. It is the responsibility of each PWS to maintain its source water to safe drinking water standards.

3.2 Roadways / Transportation corridors

Roadways and transportation corridors (i.e., railroad lines) present a significant threat to several of Plaistow's drinking water sources, as every accident represents a potential hazardous materials release. The greatest threat to the wells is the possibility of an accident involving a truck transporting bulk shipments of hazardous materials. Roadways are also considered a potential source of contamination because of the potential for leaks from vehicles, which could result in a release of petroleum products, and the application of road salt, which could cause elevated levels of sodium and chlorides. Transportation corridors are considered a high risk to Plaistow's public wells due to potential spills or releases from vehicles during normal operations, in the event of an accident, or from potential usage of pesticides during maintenance of rights-of-way.

3.3 Sewer Lines and On-Site Septic Systems

On-site septic systems and sewer lines represent potential sources of nitrates, chlorides, bacteria, and viruses. In addition, if improperly used, such as for disposal of paints, solvents, petroleum products and other hazardous wastes, they could also be a source of inorganic compounds. NH DES's Source Water Assessment has rated the presence of septic systems within WHPAs as a high or moderate risk for 43 of the 56 public drinking water wells.

3.4 Residential land uses

Aside from being associated with septic systems, oil heat and other household hazardous wastes, residential land uses are also associated with lawn care products and pesticides that are unregulated at the homeowner level. Fertilizers are a source of excess nutrients such as nitrogen and can increase nitrates in drinking water. Other potential risks include heating fuel spills that can be a source of volatile organic chemicals and metals.

3.5 Hazardous Waste Sites

Aside primary concern with facilities that generate or use hazardous materials is that leaks, spills, or improper disposal could allow contaminants to be discharged into the ground. The two largest hazardous waste sites in Plaistow are the Beede Superfund site and the former Lido gas station site. Both have remediation plans in place and under way.

3.6 Urban Land Cover

Urban land cover is characterized by impervious surfaces. Water quality impacts, such as loss of aquifer recharge are associated with land cover percentages of imperviousness surface of 10 percent or more in a watershed. Increases in impervious cover result in additional stormwater runoff, which not only interferes with recharge and water quality but can also contribute to low base flow of rivers and streams.

14 of the 38 community and non-transient non-community drinking water sources which received a completed Source Water Assessment in the early 2000's (transient systems do not receive a ranking for this criteria) have WHPAs with greater than 10 percent urban land cover. Six (6) sources received a moderate vulnerability ranking because urban land cover comprises 10 percent of the area within 1,000 feet of the well. Consequently, the risk to Plaistow's public wells from urban land cover is high. Currently, the NHDES does not possess the resources to update the Source Water Assessment Reports (SWARs) for each community and non-transient non-community drinking water source. It is now the responsibility of each PWS to keep the NHDES apprised of any updates to its source water assessment.

3.7 Underground Storage Tanks (USTs)

Fuel oil tanks represent a potential source of petroleum compounds, which include both volatile and semi-volatile compounds as well as chemical additives that may be present

in the fuel. The potential threat of contamination from this source would be from a leak, overfill, or spill. Plaistow's WHPAs contain known Leaking Underground Storage Tanks (LUST), leaking residential heating tanks (OPUF), and potential sources of petroleum contamination associated with Underground Storage Tanks (UST). The risk to Plaistow's public wells from Underground Storage Tanks is high.

4. MANAGEMENT PLAN

In order for this plan to be successful and effectively reduce the potential risk of contamination to Plaistow's drinking water sources, the Plaistow Source Water Protection Committee, in partnership with the Town's Planning Department Staff, Building and Code Enforcement staff, Conservation Commission and Planning Board, will work cooperatively to implement the following management measures.

4.1. Conduct an education and outreach campaign

Public education and awareness is the cornerstone of this Source Protection Plan as if not well informed, everyone can pose a very serious risk to source water. Most homeowners and business owners will work to try to protect their local groundwater if they know how to minimize contamination risks. The Plaistow Planning Department and Source Water Protection Committee's education and outreach campaign will include, but will not necessarily be limited to, the following steps:

1. Develop a media campaign to reach the public with educational information about local drinking water, and about the current Source Water Protection effort. Action steps include:
 - a. Create a cable TV program that explains the importance of the Source Water Protection Plan and the steps residents can take to protect groundwater. *Completed.*
 - b. Create informational pamphlets for residents explaining steps they can take to help keep the groundwater safe. These pamphlets (different each year) are available each year at the annual Old Home Day celebration.
 - c. Create informational pamphlets explaining techniques for the proper handling of hazardous waste and hence keeping the waste out of landfills and groundwater. These pamphlets are typically produced by Danville volunteers and distributed at each Hazardous Waste Collection Day. The pamphlets are different each year.
 - d. The elementary, middle, and high schools have active programs regarding recycling, source water protection, and stormwater management.

2. Have copies of this plan distributed to Town Boards and made available at the Town Hall, the Library, and on the Town website.
3. Organize a voluntary well water testing program for town residents. (See Tuftonboro and Windham examples)

4.2. Develop and Implement a BMP (Best Management Practices) Assessment Program

Many of the high risks to Plaistow's groundwater sources identified by NHDES's Source Water Assessments are petroleum products and regulated substances (greater than household quantities of hazardous materials). The committee has developed a Best Management Practice (BMP) Assessment Program for businesses that use regulated substances. BMPs are

guidelines for the storage and handling of hazardous materials. A number of New Hampshire municipalities have implemented BMP assessment programs because it is often the most effective way to prevent groundwater contamination from poor management of petroleum products and hazardous chemicals. The reason BMP inspection programs are effective is because they are an ongoing town service that

promotes awareness of the need to protect groundwater. BMP programs can provide economic benefits to businesses and the town as clean groundwater is an important factor to economic development and property values. Most businesses want to be perceived as "green" or environmentally-friendly, and the assessment can help businesses identify issues and safer ways to store and handle chemicals. The town benefits by playing an active role in preventing hazardous materials from contaminating groundwater, and through the increased awareness of hazardous material uses and locations.

Figure 7



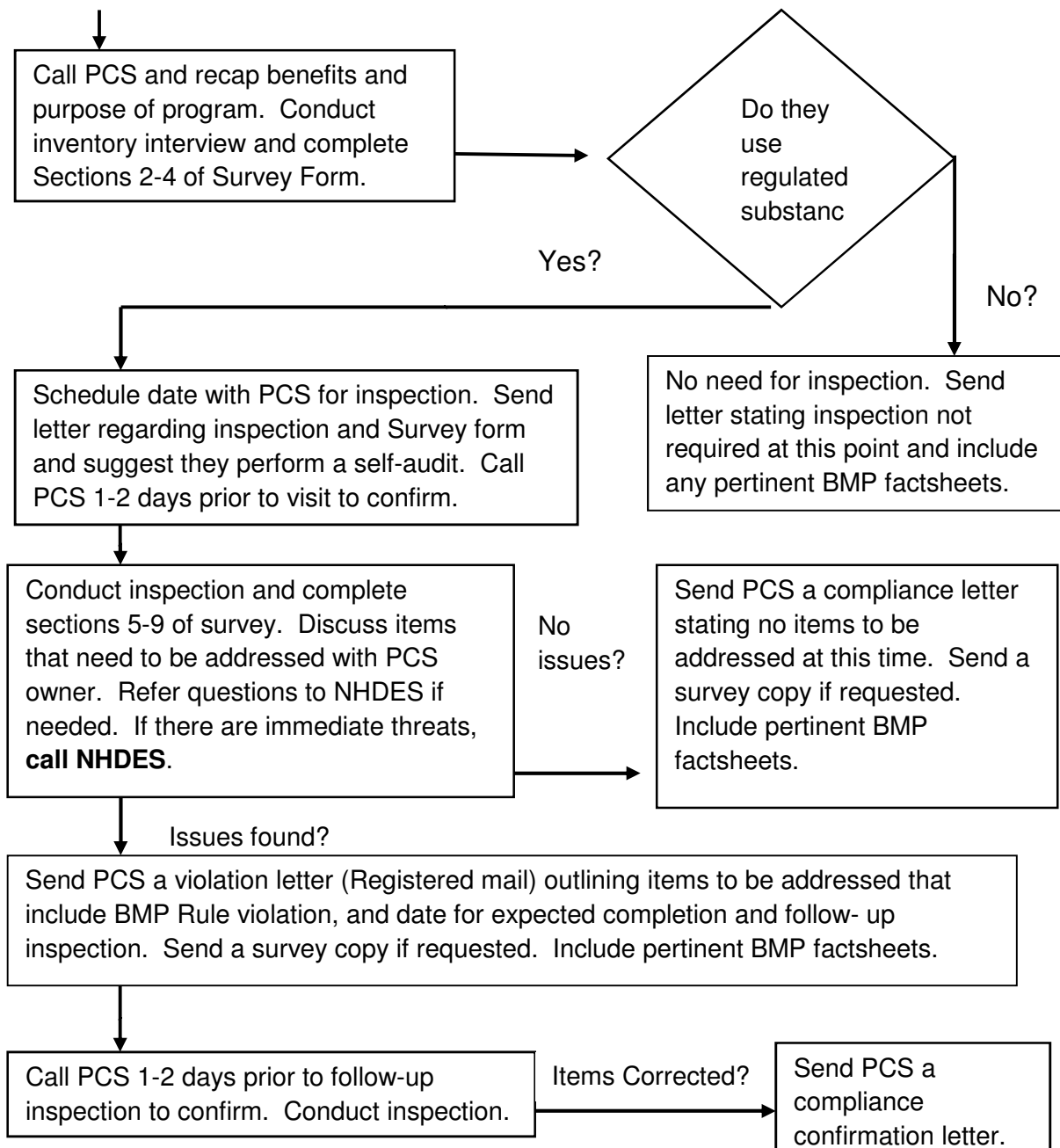
In the event that a voluntary program is not effective, the Committee may approach the Board of Selectman (BOS) for permission to seek state groundwater reclassification of Plaistow's groundwater. Reclassification to GAA or GA1 would allow the town to conduct BMP inspections and enforce New Hampshire's Administrative Rule **Env-Wq 401**, Best Management Practices for Groundwater Protection, which is a state regulation already applicable to businesses that use regulated substances in large quantities. Reclassification would result in further protection in the form of prohibition of six high-

risk land uses within WHPAs. The following land uses would be prohibited under Env-Wq 401:

- hazardous waste disposal facilities
- solid waste landfills
- outdoor storage of road salt
- junkyards
- snow dumps
- wastewater or septage lagoons

These prohibited uses would not apply to those facilities that already exist.

Town of Plaistow's Potential Contamination Sources - BMP Survey Program Process



↓ Items NOT Corrected?

Send PCS a second warning letter (Registered Mail). If no response in 30 days or if subsequent f/u survey reveals violation continues, send a referral letter to NHDES and copy PCS owner. If you do not hear from NHDES in 30 days, call 603-271-0688

4.3. Drinking Water Source Protection Area Signs

Post drinking water source signs at roadway accesses points to Plaistow's WHPAs, where appropriate, alerting travelers about the presence of the protection area and how to notify emergency personnel if a contamination event should occur. In 2014 the Conservation Commission and Normandeau Associates identified 17 locations to alert residences of sub-watershed areas and to be sensitive to water quality issues. This is a modification to the original plan of identifying WHPAs. However, the WHPAs are either associated with residential condominiums/apartments, commercial sites, or municipal sites. In all cases the well owners keep well users informed of protection schemes and education about water quality.

4.4. Salt Use

The Source Water Protection Steering Committee will communicate with the Plaistow Highway Department and State Highway Department to increase awareness regarding the Source Water Protection Areas, and to request that salt usage within the Source Water Protection Areas be minimized. Programs such as the University of New Hampshire's "Green Snow Pro Certification" are in place to educate Town and private applicators on efficient and environmentally friendly winter maintenance practices.

The Plaistow Highway department has tried to reduce its salt usage. Unfortunately many stream crossings are located on undulating or curvilinear terrain where, for safety reasons, more frequent salt applications are required.

4.5. Reduce the Contamination Risk from Used Motor Oil

The Plaistow Source Water Protection Committee will work to inform Plaistow residents how to safely dispose of their household hazardous waste, such as motor oil, and provide increased opportunities for household generated waste collection. Possibilities for improved motor oil collection opportunities include:

- a. Sponsorship of a regional semi-annual hazardous waste collection program that takes used motor oil as well as other petroleum based products. In the spring, the event is held in Plaistow at the recreation site (P.A.R.C.). In the fall, it is held in another community rotating between Atkinson, Kingston, Danville, Hampstead, and Chester.
- b. Work to better inform the public regarding facilities that currently collect used motor oil.

4.6. Continue Active Participation of the Source Water Protection Steering Committee

The Plaistow Source Water Protection Committee has updated this source water protection plan. The Committee membership may vary from year to year depending on the extent of the required update

2015 Source Water Protection Committee

Plaistow Health Officer

Plaistow Code Enforcement Officer

Plaistow Conservation Commission

Normandeau Associates

4.7 Update the Source Water Protection Plan

The Source Water Protection Plan Committee will meet at a minimum of once a year to review and update the plan and to assess its progress.

4.8. Update the Aquifer Protection Ordinance in the Town's Zoning Ordinance

The Town of Plaistow is underlain by a high yielding stratified drift aquifer, a valuable natural resource. Plaistow has also experienced significant growth pressures in the recent past, and continues to experience growth. With the assistance of the Plaistow Conservation Commission, the Town's Zoning Board of Adjustment (ZBA) has adopted an aquifer protection ordinance in the town's zoning ordinance. This ordinance provides a tool that Town Officials can use to fully understand potential impacts to drinking water sources from development proposals. The Town adopted its aquifer protection ordinance at the 2015 Town Meeting, which is in place to help protect resources that private wells use. The ordinance will also serve to help Town Officials strategize for the maximization of clean water recharge in relation to future land uses.

The Committee will work to reduce the potential risk of contamination of Plaistow's groundwater resource for current and future drinking water sources by supporting the use of this revised ordinance to review future development projects.

5. CONTINGENCY PLAN

5.1 Emergency Response

If an emergency such as a spill or other contamination occurs within the Source Protection Area the following people/agencies may then be notified:

- | | |
|--|-------------------------------|
| 1. Plaistow Town Manager, Sean Fitzgerald | (603) 382-5200 |
| 2. Affected drinking water system responsible party
(Incident within a water system's WHPA) | |
| 3. NH State Police | (800) 525-5555 |
| 4. Plaistow Town Planner, Greg Jones | (603) 382-7371 ext. 202 |
| 5. Plaistow Health Officer, Dennise Horrocks | (603) 382-2494 ext. 246 |
| 6. NHDES Drinking Water and Groundwater Bureau | (603) 271-2513 or 271-3503 |
| 7. NH Office of Emergency Management | (603) 271-2231/(800) 852-3792 |
| 8. NH Public Health Services | (603) 271-4496 |

All community public water systems are required to have a water system emergency plan per **Env-Dw 503.21**. Community and non-community, non-transient water systems are also required to notify DES of an emergency within 24 hours per **Env-Dw 503.02 Notification of Impairment**. Specifically the rule requires notification whenever treatment of a public water supply is interrupted, or the source of the supply is damaged or depleted so as to impair, or likely to impair, the quality or the sufficiency of the supply or after discovery of any actual or suspected tampering, sabotage, security breach, or any suspicious incident at the water system or interruption of service of a pressure zone or the entire water system due to an extended power outage, line break, or other cause.

5.2 Notification of System Users

If one or more of Plaistow's public or private drinking water wells should become contaminated, community water system managers will follow their water system emergency plan procedures. For all public water systems, the Town of Plaistow will notify the system users by one or more of the following methods:

1. Hand deliver a notice to each water system user
2. Post a notice at the Town Offices and Town Post Office
3. Place a notification in the Eagle Tribune and/or Carriage Town News
4. Broadcast an announcement on Channel 9, the Cable TV Stations (Timberlane Educational Network and Town's Local Access Channel)

5.3 Short Term Contingency Options

Short-term responses to either a quality or quantity outage may require one or all of the following options depending on the specific nature of the outage:

1. State Issuance of a boil water notice and/or recommendation that bottled water be utilized for drinking water purposes.
2. Trucked and delivered water from an approved source (bulk water deliveries to public water systems must follow **Env-Dw 304**).
3. Request that water system users conserve available water.
4. Source treatment.

Bottled water may be provided for potable (i.e. consumptive) use by the Community Water System in the event of a water quality problem. Restrictions will be placed on the use of water for anything but consumptive use and personal hygiene. Due to the fact that the Town has numerous public and private water systems, the Town is not necessarily responsible for emergency planning of all systems in Town. Emergency planning for Town systems will be maintained by staff, and private Community systems are to be maintained by the system managers.

Depending on the nature of a quality outage, water source treatment will be considered as a short-term solution to the problem. There are many types of pre-package treatment systems available on an emergency or short-term basis through the NH Department of Homeland Security and Emergency Management Section of the Department of Public Safety, and many contractors providing remedial solutions for contamination problems. Many of these systems are available on a 24 to 48 hour basis. Any resource requests should be coordinated through Plaistow's Emergency Management Director.

Culligan Water Conditioning
Department of Emergency Management

(800) 400-0099
(800) 852-3792

5.4 Long Term Contingency Options

Additional water quantity may be required in the future due to decreases in well yield, increase in user demand, and/or a major point source contaminant impacting one of Plaistow's public water sources. At this time the Town of Plaistow may choose to develop a municipal water supply or connect to a neighboring town supply. If the town does choose to site a municipal water supply source, this source should be sited outside of the residentially and commercially developed area of the town.

5.5 Water System Shut Down and Start Up Procedures

In the event that one or more of Plaistow's public water systems must be shut down for an emergency situation, the system personnel should follow the system's procedures for shutting off the well, and notify the following people if warranted by the severity of the situation:

AGENCY

Plaistow's Town Manager
Plaistow Health Officer
Plaistow Building Inspector
Plaistow's Town Planner
State Police
Drinking Water and Groundwater Bureau
Homeland Security and Emergency Management
NH Health and Human Services

PHONE

(603) 382-5200
(603) 382-2494 ext 246
(603) 382-5200 ext 247
(603) 382-7371 ext 202
603-223-4381
603-271-2513
603-271-2231
603-271-4496

APPENDIX A



Town of Plaistow, New Hampshire
OFFICE OF THE TOWN MANAGER
Sean R. Fitzgerald

*Plaistow Town Hall
145 Main Street
Plaistow, NH 03865
April 2, 2015*

*(603) 382-7106 Office
(603) 382-7183 Fax
Email: sfitzgerald@Plaistow.com
Web: www.Plaistow.com*

RE: [Give name and location of facility],
Present use: [List present use of property]

Dear [Customer, Neighbor, Facility Owner - fill in appropriate terms]:

I am pleased to report that the Town of Plaistow received a grant to review the Town's critical groundwater resources, the sole source of drinking water for Plaistow's citizens and businesses.

As part of the grant, we are reaching out to a number of businesses and residents to help establish partnerships to support a greater awareness of water resource challenges facing Plaistow. The ultimate goal is to protect the quality and quantity of Plaistow's drinking water supply by identifying and managing potential sources of contamination. As part of this effort we have initiated a program to ensure that substances that have the potential to pollute groundwater are managed in a manner so that they are not released into our environment.


We hope to provide additional information to Plaistow residents and businesses on how we can all do more to prevent groundwater pollutants from affecting Plaistow's drinking water resources. Clean drinking water is one of the most important public health responsibilities and also plays a critical role in supporting Plaistow's economic development and sustainability. Attached is a Fact Sheet from the New Hampshire Department of Environmental Services (NHDES) involving how to prevent groundwater contamination. New Hampshire presently has regulations that may apply to your operations and require "best management practices" for preventing groundwater contamination. Best Management Practices for Groundwater Protection, are also available online at NHDES's website: (<http://des.nh.gov/organization/commissioner/legal/rules/documents/env-wq401.pdf>).

Over the next few weeks Plaistow's Chief Building Official Mike Dorman will be reaching out to you with a short survey and potentially a follow up site visit. The program is intended to ensure that simple and common sense practices that limit groundwater contamination are in place.

We look forward to working with you on this endeavor and appreciate your cooperation as we move forward with the project. In the meantime, if you should have any questions please feel free to call Mr. Dorman at 603-382-1191 x20.

With appreciation for all you do to help promote a safer and cleaner Plaistow!

Sincerely,


Sean Fitzgerald
Town Manager

Enclosures: NH DES Fact Sheet 22-4

APPENDIX B

Assessments of Public Water Supply Sources - PLAISTOW

This report is a summary of NH Department of Environmental Services' assessments of the vulnerability of each source used by the public water system(s) located in this municipality. The sources listed here are grouped first by the type of public water system and then by the system itself. Each source was ranked according to a number of criteria; a vulnerability ranking is given for each criterion that applies to the source. *An explanation of each column in the report can be found on the last page.*

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings		Susceptibility Ranking Criteria														
						Detects	Well/Intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status	
				Highs	Mediums															Lows
System Type <input type="checkbox"/> C C=Community; P=Non-Transient, Non-Community; N=Transient																				
EPAID	1932020	System Name:		GOLDEN HILL																
	001	GRW	G	2/29/2000	3	3	6	L	L	L	M	H	L	M	H	M	L	L		H
	002	GRW	G	2/29/2000	3	3	6	L	L	L	M	H	L	M	H	M	L	L		H
	003	BRW	G	2/6/2002	3	1	8	L	L	L	M	H	L	H	H	L	L	L		L
	004	BRW	G	2/6/2002	3	1	8	L	L	L	M	H	L	H	H	L	L	L		L
EPAID	1932030	System Name:		WESTVIEW PARK CONDO																
	001	BRW	G	12/18/2001	2	5	5	H	L	M	M	M	L	M	H	M	L	L		L
	002	BRW	G	10/18/2001	2	5	5	H	L	M	M	M	L	M	H	M	L	L		L
EPAID	1932040	System Name:		FORREST STREET CONDOMINIUM																
	001	BRW	G	5/9/2001	3	3	6	L	L	L	M	H	L	H	L	M	H	L		M
EPAID	1932050	System Name:		TWIN RIDGE CONDOS																
	002	BRW	G	10/27/2000	2	2	8	L	L	L	M	H	L	H	L	M	L	L		L
	003	BRW	G	10/27/2000	3	2	7	L	L	L	M	H	L	H	H	M	L	L		L
	004	BRW	G	3/11/2005	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L
	005	BRW	G	10/27/2000	2	2	8	L	L	L	M	H	L	H	L	M	L	L		L
	006	BRW	G	10/22/2004	3	2	7	L	L	L	M	H	L	H	H	M	L	L		L
EPAID	1932060	System Name:		MOONGATE FARM																
	001	BRW	G	10/14/2002	1	3	8	L	H	L	M	L	L	M	L	M	L	L		L

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings		Susceptibility Ranking Criteria														
						Detects	Well/Intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status	
				Highs	Mediums	Lows														
EPAID	1932070	System Name:		VALLEY FIELD APTS NORTHLAND																
001	BRW	G	6/29/2001	2	3	7	L	L	L	M	H	L	H	M	M	L	L		L	
003	BRW	G	6/29/2001	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
EPAID	1932080	System Name:		STONEBRIDGE VILLAGE																
001	BRW	G	12/14/2001	1	2	9	L	L	L	M	L	L	L	H	M	L	L		L	
003	BRW	G	12/14/2001	1	2	9	L	L	L	M	L	L	L	H	M	L	L		L	
EPAID	1932090	System Name:		GREENFIELD HILL ESTATES																
001	BRW	G	8/16/2001	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
002	BRW	G	8/16/2001	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
003	BRW	G	8/16/2001	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
004	BRW	G	8/16/2001	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
005	BRW	G	9/28/2006	1	3	8	L	L	L	M	M	L	H	L	M	L	L		L	
EPAID	1932100	System Name:		STRAWBERRY HILL																
001	BRW	G	12/13/2000	3	1	8	H	L	L	M	H	L	H	L	L	L	L		L	
EPAID	1932110	System Name:		BRYANT BROOK																
001	BRW	G	9/27/2001	2	3	7	L	L	L	M	M	L	H	H	M	L	L		L	
EPAID	1932120	System Name:		CROSS RIDGE ESTATES																
001	BRW	G	6/21/2000	1	3	8	L	L	L	L	H	L	M	L	M	L	L		M	
EPAID	1932130	System Name:		26 CHANDLER AVE CONDOS																
001	BRW	G	8/3/2001	8	2	2	H	L	H	H	H	H	H	H	M	L	H		M	
EPAID	1932150	System Name:		BLUEBERRY KNOLL ESTATES																
001	BRW	G	9/1/2000	2	3	7	H	L	L	M	H	L	L	M	M	L	L		L	
EPAID	1932160	System Name:		HOWARD MANOR CONDOMINIUMS																
002	BRW	G	6/12/2000	2	4	6	L	L	L	M	H	L	M	H	M	L	L		M	

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings		Susceptibility Ranking Criteria															
				Highs	Mediums	Lows	Detects	Well/intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status	
EPAID	1932170	System Name:		RAINBOW RIDGE																	
001	BRW	G	6/7/2000	3	1	8	H	L	L	L	H	L	H	L	M	L	L		L		
002	BRW	G	6/7/2000	3	0	9	H	L	L	L	H	L	H	L	L	L	L		L		
EPAID	1932180	System Name:		TUXBURY MEADOWS																	
001	BRW	G	8/31/2000	1	4	7	L	L	L	M	M	L	M	H	M	L	L		L		
002	BRW	G	8/31/2000	1	4	7	L	L	L	M	M	L	M	H	M	L	L		L		
EPAID	1932190	System Name:		CHANDLER TERRACE																	
001	BRW	G	6/12/2000	6	2	4	L	L	H	H	H	H	H	H	M	L	L		M		
EPAID	1932200	System Name:		SWEET HILL ESTATES																	
001	BRW	G	9/27/2001	2	1	9	L	H	L	L	L	L	H	L	M	L	L		L		
EPAID	1932210	System Name:		WEST PINE CONDO ASSOC																	
001	BRW	G	8/15/2000	3	3	6	H	L	L	M	H	L	H	M	L	L	L		M		
002	BRW	G	8/15/2000	3	3	6	H	L	L	M	H	L	H	M	L	L	L		M		
003	BRW	G	8/15/2000	3	3	6	H	L	L	M	H	L	H	M	L	L	L		M		
004	BRW	G	8/15/2000	3	3	6	H	L	L	M	H	L	H	M	L	L	L		M		
EPAID	1932220	System Name:		SHADY LANE APTS																	
001	BRW	G	9/30/2005	5	3	4	H	L	H	M	H	L	H	M	M	L	L		H		
System Type <input type="text" value="N"/> C=Community; P=Non-Transient, Non-Community; N=Transient																					
EPAID	1936030	System Name:		PLAISTOW SHOPPING CENTER																	
002	BRW	G	7/23/2001	1	0	8	L	L	L	H	L	L	L			L	L				
EPAID	1936160	System Name:		FITZGERALD SAFETY COMPLEX																	
001	BRW	G	6/13/2001	2	0	7	L	L	L	H	L	L	H			L	L				
EPAID	1938010	System Name:		DANOS PIZZA AND SUBS																	
001	BRW	G	9/29/2000	3	0	6	L	L	L	H	H	L	H			L	L				

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
EPAID 1938040	System Name: EGGIES DINER																			
001	BRW	G	9/29/2000	3	0	6	L	L	H	H	H	L	L			L	L			
EPAID 1938050	System Name: PRIMO PASTA TWO																			
001	BRW	G	7/23/2001	3	0	6	L	L	L	H	H	L	H			L	L			
EPAID 1938060	System Name: LARRYS CLAM BAR																			
001	BRW	G	7/23/2001	5	0	4	L	H	H	H	H	L	H			L	L			
EPAID 1938080	System Name: THE CORNER POCKET																			
001	BRW	G	8/17/2001	3	0	6	L	L	L	H	H	L	H			L	L			
003	BRW	G	8/17/2001	3	0	6	L	L	L	H	H	L	H			L	L			
EPAID 1938110	System Name: DUNKIN DONUTS PLAZA																			
001	BRW	G	6/13/2001	3	0	6	L	L	H	H	H	L	L			L	L			
EPAID 1938140	System Name: VIC GEARY SENIOR CENTER																			
001	BRW	G	7/24/2001	1	0	8	L	L	L	H	L	L	L			L	L			
EPAID 1938150	System Name: BRICKYARD II PLAZA																			
001	BRW	G	7/23/2001	3	0	6	L	L	L	H	H	L	H			L	L			
EPAID 1938170	System Name: COTTAGE PLAZA																			
002	BRW	G	8/16/2001	2	0	7	L	L	L	H	H	L	L			L	L			
EPAID 1938220	System Name: PLAISTOW PETRO KING																			
001	BRW	G	7/23/2001	3	0	6	L	L	H	H	H	L	L			L	L			
EPAID 1939010	System Name: PLAISTOW FISH AND GAME CLUB																			
001	BRW	G	6/13/2001	1	0	8	L	L	L	H	L	L	L			L	L			
EPAID 1939020	System Name: AMERICAN LEGION POST 34																			
002	BRW	G	8/3/2001	2	0	7	L	L	L	H	H	L	L			L	L			

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSS	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
EPAID 1939030	System Name: SAWYERS BANQUET FUNCTION FACIL																			
001	PTW	G	7/24/2001	3	0	6	H	L	L	H	H	L	L			L	L			
EPAID 1939050	System Name: PLAISTOW TOWN HALL																			
001	BRW	G	7/24/2001	3	0	6	L	L	H	H	H	L	L			L	L			
System Type <input type="checkbox"/> P C=Community; P=Non-Transient, Non-Community; N=Transient																				
EPAID 1935010	System Name: POLLARD ELEMENTARY SCHOOL																			
001	BRW	G	5/16/2002	4	3	5	L	L	H	M	H	L	H	H	M	L	L		M	
002	BRW	G	5/16/2002	4	3	5	L	L	H	M	H	L	H	H	M	L	L		M	
EPAID 1935020	System Name: TIMBERLANE MIDDLE SCHOOL																			
001	BRW	G	9/27/2001	2	4	6	L	L	M	M	L	L	H	M	H	L	L		M	
EPAID 1935030	System Name: TIMBERLANE RGNL HIGH SCHOOL																			
001	BRW	G	8/3/2001	4	2	6	L	L	H	M	L	L	H	H	H	L	L		M	
EPAID 1935040	System Name: SWEET HILL KINDERGARTEN																			
001	BRW	G	9/27/2001	2	3	7	L	H	L	M	L	L	H	L	M	L	L		M	
EPAID 1935060	System Name: ALL ABOUT ME EARLY LEARNING CT																			
002	BRW	G	9/27/2001	6	2	4	H	L	H	H	H	M	M	H	L	L	L		H	
EPAID 1935070	System Name: LITTLE EXPLORERS																			
001	BRW	G	7/17/2001	3	3	6	L	L	L	M	H	L	M	H	M	L	L		H	
EPAID 1936070	System Name: CHART STORAGE SYSTEM DIVISION																			
002	BRW	G	9/27/2001	3	2	7	L	L	H	M	L	L	L	H	M	L	L		H	
EPAID 1936100	System Name: PENTUCKET SHOPPING CENTER																			
002	BRW	G	11/5/2001	1	4	7	L	L	L	M	L	L	M	H	M	L	L		M	
004	BRW	G	11/5/2001	1	5	6	L	L	L	M	M	L	M	H	M	L	L		M	

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Defects	Well/Intake	KCSs	PCSS	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
EPAID 1936110	System Name: SCANDIA PLASTICS INC																			
001	BRW	G	9/5/2001	4	3	5	L	L	M	H	H	L	M	H	M	L	L		H	
EPAID 1936130	System Name: PLAISTOW COMMONS																			
001	BRW	G	9/27/2001	5	2	5	L	H	H	H	H	L	M	H	L	L	L		M	
EPAID 1936150	System Name: MARKET BASKET DEMOULAS 25																			
002	BRW	G	6/12/2000	5	4	3	H	H	H	M	M	L	M	H	M	L	L		H	
EPAID 1936230	System Name: SHAWS PLAZA																			
001	BRW	G	6/21/2000	6	2	4	H	L	H	H	H	L	H	H	M	L	L		M	
003	BRW	G	6/21/2000	6	2	4	H	L	H	H	H	L	H	H	M	L	L		M	
EPAID 1936270	System Name: FIELDSTONE INDUSTRIAL PARK																			
001	BRW	G	7/31/2002	4	3	5	L	H	H	M	M	L	H	H	M	L	L		L	
EPAID 1936280	System Name: BECKWOOD SERVICES																			
001	BRW	G	2/6/2002	2	4	6	L	L	M	M	M	L	H	H	M	L	L		L	
EPAID 1936290	System Name: MB TRACTOR AND EQUIPMENT																			
001	BRW	G	9/1/2006	3	3	6	L	L	L	M	H	L	M	H	M	L	L		H	
EPAID 1938090	System Name: BRICKYARD I PLAZA																			
001	BRW	G	7/23/2001	1	0	8	L	L	L	H	L	L	L			L	L			
EPAID 1938190	System Name: GREAT ELM PLAZA																			
001	BRW	G	3/16/2001	4	4	4	L	L	M	H	H	M	H	H	M	L	L		M	

2001 Source Water Protection Steering Committee

Charles	Blinn	Plaistow Board of Selectmen
Bruce	Dunn	Greenfield Hill Homeowners Assoc.
Larry	Gill	Plaistow Conservation Commission
Dick	Latham	Plaistow Citizen
Paul	LaVallee	Plaistow Conservation Commission
John	McArdle	Plaistow Fire Chief
Tim	Moore	Chair, Plaistow Planning Board
Kim	Onett	Plaistow Health Officer
Jill	Senter	Plaistow Conservation Commission
Merilyn	Senter	Chair, Plaistow Board of Selectmen
Peter	Taylor	Director of Facilities, Timberlane Regional School District